

276. *PISCIDIA PISCIPULA* Sarg. (FABACEAE) — Jamaica Dogwood

Best known for its action as a fish poison, stupefying the fish in waters to which it has been added. Fruits from some species have been used as arrow poison. The plant was described as narcotic in 1844.² Has been used as a substitute for morphine and opium.³³ Extracts are insecticidal. The heavy, yellow-brown, close-grained wood is used for boat building, charcoal, and fuel.

Analgesic, diaphoretic, diuretic, emetic, hypnotic, mydriatic, narcotic (root said to smell like opium),²² sedative, and sudorific, the plant is said to help asthma, dysmenorrhea, neuralgia, pertussis, spasm, and toothache. Root bark applied locally in toothache. Extracts have been used in alcoholism, asthma, bronchitis, delirium, dysmenorrhea, headache, hysteria, insomnia, neuralgia, pertussis and tuberculosis.^{2,33,42} Bahamians bind crushed leaves to the head, the emanating fumes believed to alleviate headache. Jamaicans add the bark to their baths to alleviate backache and other pains. Yucatan natives use leaf preparations for cold, cough, skin diseases, and wounds, the bark extract as an antispasmodic, sedative, and sudorific. The bark extract is said to cure mange in dogs.⁴²

Hager's Handbook lists jamaicin $C_{22}H_{18}O$, beta-sitosterol, cerotinic-, stearic-, malic-, succinic-, eretic-, tartaric-, and citronic-acid, tannin, resins, sumatrol, lisetine, piscerythron, piscidone, millettone, isomellettone, and dehydromellettone. Rotenone, $C_{23}H_{22}O_6$, while piscicidal and insecticidal, has also shown anticancer activity against lymphocytic leukemia¹⁰ and cell cultures of human epidermoid carcinoma of the nasopharynx.⁴ Like so many other anticancer compounds, the rotenone is also said to be carcinogenic.¹⁰ The aqueous extract of the bark contains piscidic acid and a bitter glucoside. It also is reported to contain an alkaloid. All parts, more especially the root bark, contain ichthyotoxic substances variously reported as *circa* 0.25% ichthyone ($C_{21}H_{14}O_5$), piscidin ($C_{29}H_{24}O_8$) or piscidic acid ($C_{11}H_{12}O_7$), and rotenone.^{33,42}

Toxicity — It may cause gastric distress and nausea, overdoses “produce toxic effects”,² numbness, tremors, salivation, sweating, etc.³³ The wood is said to be irritant and toxic to humans.⁶